

REMARKS

This is a full and timely response to the non-final Office Action mailed January 14, 2009. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Present Status of Patent Application

Upon entry of the amendments in this response, claims 41, 45, and 47-56 are pending in the present application. More specifically, claims 1-31, 42-44, and 46 have been canceled without prejudice, waiver, or disclaimer; claims 32-40 have been withdrawn in response to an election/restriction in a previous Office action; claims 41 and 45 have been currently amended without adding new matter; and claims 47-56 are new claims that are submitted without introduction of new matter. Applicants reserve the right to pursue the subject matter of the cancelled claims in a continuing application if they so choose, and do not intend to dedicate the subject matter of the canceled claims to the public.

Reconsideration and allowance of the application and presently pending claims are respectfully requested.

A. Claim Rejections under 35 U.S.C. §102

Statement of the Rejection

Claims 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Parry et al. (US 7,043,166).

Response to the Rejection

Claims 26-28

Applicants have currently canceled claims 26-28 and respectfully submit that the rejection of these claims has been rendered moot as a result of the cancellation. The claims have been canceled in order to avoid extensive amendments that may tend to obscure subject matter which Applicants believe more distinctly distinguish the claims over the cited references.

However, new claims 47-52 have been submitted to incorporate such subject matter and certain remarks pertaining to these new claims are provided below.

B. Claim Rejections under 35 U.S.C. §103

I. Statement of the Rejection

Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parry et al. (US 7,043,166) in view of Nagata et al. (US 5,237,645).

Response to the Rejection

Claims 29-31

Applicants have currently canceled claims 29-31 and respectfully submit that the rejection of these claims has been rendered moot as a result of the cancellation.

II. Statement of the Rejection

Claims 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parry et al. (US 7,043,166) in view of Sugita (US 2004/0068548).

Response to the Rejection

Claim 41

Applicants have opted to amend claim 41 in order to move forward prosecution in the case, and respectfully submit that the claim, at least as amended, is allowable over the cited references. The claim amendments are directed at highlighting certain features that provide distinct advantages in Applicants' multifunction peripheral device in comparison to existing prior art peripheral devices.

Applicants have disclosed in their specification, several shortcomings in prior art devices. For example, in their paragraph [003], Applicants point out: "*A more complex controller and increased memory requirements all increase the cost of the (prior art) printer.*" To elaborate upon this aspect, as is known, a prior art multifunction peripheral device incorporates several functional modes such as a print mode, a scan mode, a fax mode, and a copy mode. All these modes are concurrently supported by using complex hardware (e.g. an ASIC controller) and firmware that supports all of the modes in the device.

In contrast, Applicants peripheral device does not store all the firmware all the time. Instead, firmware code is downloaded from a host computer on an as-needed basis for executing only one function at a time. For example, if a user desires to use the device as a printer at any give moment in time, it does not make sense to burden the device with redundant software supporting other modes (such as fax, scan, and copy modes) at the same time. Consequently, Applicants claim 41 recites a

multifunctional peripheral device that is dynamically re-configured each time a user decides to use one of the alternative functional modes. The dynamic re-configuration is carried out by downloading only a portion of the firmware code (e.g. printer code) stored in a host computer that is coupled to the multifunctional peripheral device.

It can be appreciated by one of ordinary skill in the art that such a storing of firmware code in the host computer rather than in the peripheral device, provides several benefits. For example, one such benefit pertains to the availability of larger storage capacity and more complex hardware in the host computer. Another benefit pertains to firmware updates carried out via a communications network to which the host computer is coupled. As can be understood by one of ordinary skill in the art, such updating of firmware/software residing in a host computer (e.g. Internet-oriented auto-updates) overcomes several shortcomings associated with conventional methods wherein a host computer is used for updating firmware resident in a peripheral device. Such conventional methods involve first downloading/storing (via network, CD ROM etc.) the update in a host computer and then using the host computer to download the update into the peripheral device (two-step updating process), versus Applicants' one-step process (updating in the host computer only).

Turning now to the cited references in the current rejection, Applicants respectfully draw attention to the fact that neither Parry nor Sugita, individually or combinedly, disclose firmware code that is provided to a peripheral device on the basis of alternative functional modes (fax, scan, copy, print etc.). Furthermore, neither reference teaches or suggests transferring code to the device on an as-needed basis for executing one function at a time.

Specifically, neither reference teaches or suggests the following portion of amended claim 41: *"host computer communicatively coupled to the multifunctional peripheral device for transferring the first portion of firmware code to the peripheral device on an as-needed basis, thereby enabling the first functional mode while eliminating storage in the peripheral device, of firmware code portions that are not used when the first functional mode is selected."* (Emphasis added).

One of ordinary skill in the art can understand that rewriting existing firmware as taught by Sugita does not reasonably suggest Applicants' transfer of firmware from a host to a peripheral for enabling one function amongst several alternative functions and precluding the other functions on the peripheral device (by eliminating storage of other firmware).

It may be pertinent in this context, to cite MPEP 2141.01 (III). Content of the Prior Art is Determined at the Time the Invention was made to avoid Hindsight), which recites in part: *"It is*

*difficult but necessary that the decision maker forget what he or she has been taught...about the claimed invention and cast the mind back to the time the invention was made (often as here many years), to occupy the mind of one skilled in the *art. >...<”* Applicants respectfully submit that if this guidance were to be used, the allegations made on page 8 of the Office action (vis-à-vis Sugita’s “new firmware”) do not appear logical and can only be construed as conclusions based on hindsight gained from Applicants’ disclosure. As pointed out in the MPEP directive, it is necessary that Applicants’ claim be forgotten when examining prior art such as Sugita and Parry.

In summary, Applicants respectfully submit that claim 41, at least as amended, is allowable over the cited references, and hereby request withdrawal of the rejection under 35 U.S.C. 103, followed by allowance of the claim.

Claims 42-43

Applicants have currently canceled claims 42-43 and respectfully submit that the rejection of these claims has been rendered moot as a result of the cancellation.

III. Statement of the Rejection

Claims 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parry et al. (US 7,043,166) in view of Sugita (US 2004/0068548), and further in view of Nagata et al. (US 5,237,645).

Response to the Rejection

Claims 44 and 46

Applicants have currently canceled claims 44 and 46 and respectfully submit that the rejection of these claims has been rendered moot as a result of the cancellation.

Claim 45

Applicants respectfully submit that independent claim 41 is allowable for reasons provided above. Therefore, claim 45, which is directly dependent on claim 41, is also allowable by law arising from claim dependency. Applicants hereby request withdrawal of the rejection followed by allowance of the claim.

C. Remarks pertaining to new claims 47-56

Applicants respectfully submit that new claims 47-56 are allowable over the cited references. As for new independent claim 47, several remarks made above with reference to the rejection of

claim 41 are equally pertinent to new claim 47 as well. However, in the interests of brevity these remarks will not be repeated herein.

It may be pertinent to point out that claims 48 and 53 incorporate the term “*consists*” while claims 49 and 54 incorporate the term “*comprises*.” Claims 51, 52, and 56 recite a deletion of previously stored firmware in order to load firmware corresponding to a currently selected function of the peripheral device (i.e. limiting storage to only one function).

Cited Art Made of Record

The cited art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

CONCLUSION

In light of the reasons set forth above, Applicants respectfully submit that pending claims 41, 45, and 47-56 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims (including withdrawn claims) are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned representative at (404) 610-5689.

Respectfully submitted,

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I hereby certify that this paper is being electronically transmitted to the Commissioner for Patents on the date shown below:

Date of transmission: 25 March 2009

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